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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
POKRZYWA, JOSEPH R

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/368,354	BUCKLEY ET AL.	
	Examiner	Art Unit	
	Joseph R. Pokrzywa	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 1/28/05, and has been entered and made of record. Currently, **claims 1-23** are pending.

2. The declaration filed on 1/28/05 under 37 CFR 1.131 has been considered but is ineffective to overcome the Asano (U.S. Patent Number 6,343,846) reference.

3. The evidence submitted is insufficient to establish applicant's alleged actual reduction to practice of the invention in this country or a NAFTA or WTO member country before the effective date of the Asano reference. Particularly, a copy of the Appendix A, noted in the declaration, is not currently in the file, and thus cannot be considered as evidence. Further, the Asano reference was filed **March 2, 1998**, while the front page (paragraph 1) of the submitted declaration states that the current invention was invented prior to May 2, 1998, being later than the filing date of Asano. Because of these reasons, the declaration is ineffective to overcome Asano, and the rejection of **claims 1-22**, as cited in the Office action dated 11/16/04, under 35 U.S.C. 103(a) as being unpatentable over Asano in view of Miller *et al.* (U.S. Patent Number 5,731,823), is repeated hereinbelow.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano (U.S. Patent Number 6,343,846, cited in the Office action dated 11/16/04) in view of Miller *et al.* (U.S. Patent Number 5,731,823, cited in the Office action dated 11/16/04).

Regarding ***claim 1***, Asano discloses a method of processing image data of a color image for marking (see Figs. 12-14), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (see Figs. 12-14, whereby the dots are synonymous with pixels), the method comprising generating information that designates the overmarked pixels (step 301, column 7, lines 29-33), performing *image processing* to create a *processed image* of the color image (see Figs. 1, 5, and 6), the *image processing* including overmarking processing that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same *processed image* (whereby, as read in column 2, lines 60-67 image data is stored in the frame memories that include four planes 108Y, 108Bk,108C, and 108M in which image data corresponding to respective colors of yellow, black, cyan and magenta are stored. Further, the memory elements include four planes 109Y, 109M, 109C and 109Bk. Thus both the first color and the second color would be separately included in the overmarked pixels in the same *processed* image), and modifying image data of the overmarked pixels in the *processed image* to achieve undercolor reduction by reducing a value corresponding to a reduced amount of an underlying marking material (step 302 in Fig. 13, column 7, lines 20-46, and column 9, lines 41-54).

However, Asano fails to expressly disclose if the above noted *image processing* is **raster** image processing that creates a **raster** image of the color image, whereby the **raster** image processing includes the overmarking processing that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same **raster** image.

Miller discloses a method of processing image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (column 6, lines 25 through 52), the method comprising generating information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), performing raster image processing to create a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processing including overmarking processing that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63, and column 7, lines 21-45), and modifying image data of the overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21 through 64).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's raster image processing teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of color printers, whereby rasterizing print data is in a typical process, as recognized by Miller in column 4, lines 42-67, being included in a PostScript printer. Therefore, it would have

been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 1.

Regarding ***claim 2***, Asano and Miller disclose the method discussed above in claim 1, and Asano further teaches that the modifying the image data of the overmarked pixels comprises modifying image data corresponding to the at least one first color (step 17 in Fig. 6, and step 302 in Fig. 13, column 9, line 28-column 10, line 22).

Regarding ***claim 3***, Asano and Miller disclose the method discussed above in claim 1, and Asano further teaches of outputting the *processed image*, including the modified image data, to a marking driver (see Fig. 1, driver 111). As discussed above, it would have been obvious to a person of ordinary skill in the art to have Miller's raster image processing teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of color printers, whereby rasterizing print data is in a typical process, as recognized by Miller in column 4, lines 42-67, being included in a PostScript printer. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 3.

Regarding ***claim 4***, Asano and Miller disclose the method discussed above in claim 1, and Asano further teaches that the modifying image data of the overmarked pixels comprises modifying a value of the image data corresponding to the at least one first color (step 17 in Fig. 6, and step 302 in Fig. 13, column 9, lines 54-67).

Regarding ***claim 5***, Asano and Miller disclose the method discussed above in claim 4, and Asano further teaches that the modified value of the image data corresponding to the at least

one first color results in a reduced amount of marking material corresponding to the at least one first color being applied to a marking substrate (step 17 in Fig. 6, and step 302 in Fig. 13, and column 7, lines 29-46).

Regarding ***claim 6***, Asano and Miller disclose the method discussed above in claim 1, and Miller further teaches that the generating information that designates the overmarked pixels comprises generating tags that correspond to the overmarked pixels (column 3, lines 35 through 50, column 6, line 25 through column 7, line 13, and column 8, lines 6-18).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 6.

Regarding ***claim 7***, Asano and Miller disclose the method discussed above in claim 6, and Miller further teaches that the overmarked pixels correspond to a black image and the tags indicate that the overmarked pixels are black image pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have

been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 7.

Regarding ***claim 8***, Asano and Miller disclose the method discussed above in claim 6, and Miller further teaches that the overmarked pixels correspond to one of black text and a black stroke (column 6, line 25-column 7, line 54), and the tags indicate that the overmarked pixels are one of black text pixels and black stroke pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 8.

Regarding ***claim 9***, Asano and Miller disclose the method discussed above in claim 1, and Miller further teaches that the generating information that designates the overmarked pixels comprises performing pattern recognition that recognizes specified patterns (see abstract, column 3, lines 35 through 65), and designating pixels that form the recognized patterns as the overmarked pixels (column 6, line 25 through column 7, line 54).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's pattern recognition teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of image data processing in color printers, whereby the type of data is identified and characterized, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 9.

Regarding ***claim 10***, Asano discloses a system that processes image data of a color image for marking (see Figs. 12-14), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (see Figs. 12-14, whereby the dots are synonymous with pixels), the system comprising an overmarked pixel designator that generates information that designates the overmarked pixels (step 301, column 7, lines 29-33), an *image processor* that creates a *processed image* of the color image (), the *image processor* provided with an overmarking function that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same *processed image* (whereby, as read

in column 2, lines 60-67 image data is stored in the frame memories that include four planes 108Y, 108Bk,108C, and 108M in which image data corresponding to respective colors of yellow, black, cyan and magenta are stored. Further, the memory elements include four planes 109Y, 109M, 109C and 109Bk. Thus both the first color and the second color would be separately included in the overmarked pixels in the same *processed* image), and an image data modification unit that modifies image data of the overmarked pixels in the *processed image* to achieve undercolor reduction by reducing a value corresponding to a reduced amount of an underlying marking material (step 302 in Fig. 13, column 7, lines 20-46, and column 9, lines 41-54).

However, Asano fails to expressly disclose if the above noted *image processor* is a **raster** image processor that creates a **raster** image of the color image, whereby the **raster** image processing includes the overmarking processing that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same **raster** image.

Miller discloses a system that processes image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (column 6, lines 25 through 52), the system comprising an overmarked pixel designator that generates information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), a raster image processor that creates a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processor provided with an overmarking function that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63,

and column 7, lines 21-45), and an image data modification unit that modifies image data of the overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21 through 64).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's raster image processor teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of color printers, whereby rasterizing print data is in a typical process, as recognized by Miller in column 4, lines 42-67, being included in a PostScript printer. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 10.

Regarding ***claim 11***, Asano and Miller disclose the system discussed above in claim 10, and Asano further teaches that the modified is image data corresponding to the at least one first color (step 17 in Fig. 6, and step 302 in Fig. 13, column 9, line 28-column 10, line 22).

Regarding ***claim 12***, Asano and Miller disclose the system discussed above in claim 10, and Asano further teaches of a marking driver that performs marking according to the *processed image*, including the modified image data (see Fig. 1, driver 111). As discussed above, it would have been obvious to a person of ordinary skill in the art to have Miller's raster image processing teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of color printers, whereby rasterizing print data is in a typical process, as recognized by

Miller in column 4, lines 42-67, being included in a PostScript printer. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 12.

Regarding ***claim 13***, Asano and Miller disclose the system discussed above in claim 10, and Asano further teaches that the image data modification unit modifies a value of the image data corresponding to the at least one first color (step 17 in Fig. 6, and step 302 in Fig. 13, column 9, lines 54-67).

Regarding ***claim 14***, Asano and Miller disclose the system discussed above in claim 13, and Asano further teaches that the marking driver that performs marking according to the *processed image*, including the modified image data (see Fig. 1, driver 111), wherein the marking driver marks a reduced amount of marking material corresponding to the at least one first color on a marking substrate based on the modified value of the image data corresponding to the at least one first color (step 17 in Fig. 6, and step 302 in Fig. 13, and column 7, lines 29-46). As discussed above, it would have been obvious to a person of ordinary skill in the art to have Miller's raster image processing teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of color printers, whereby rasterizing print data is in a typical process, as recognized by Miller in column 4, lines 42-67, being included in a PostScript printer. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 14.

Regarding ***claim 15***, Asano and Miller disclose the system discussed above in claim 10, and Miller further teaches that the overmarked pixel designator comprises a tag generator that

generates tags that correspond to the overmarked pixels (column 3, lines 35 through 50, column 6, line 25 through column 7, line 13, and column 8, lines 6-18).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 15.

Regarding ***claim 16***, Asano and Miller disclose the system discussed above in claim 15, and Miller further teaches that the overmarked pixels correspond to a black image and the tags indicate that the overmarked pixels are black image pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system.

Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 16.

Regarding ***claim 17***, Asano and Miller disclose the system discussed above in claim 15, and Miller further teaches that the overmarked pixels correspond to one of black text and a black stroke (column 6, line 25-column 7, line 54), and the tags indicate that the overmarked pixels are one of black text pixels and black stroke pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 17.

Regarding ***claim 18***, Asano and Miller disclose the system discussed above in claim 10, and Miller further teaches that the overmarked pixel generator comprises a pattern recognition device that recognizes specified patterns (see abstract, column 3, lines 35 through 65), and designates pixels that form the recognized patterns as the overmarked pixels (column 6, line 25 through column 7, line 54).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's pattern recognition teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of image data processing in color printers, whereby the type of data is identified and characterized, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 18.

Regarding ***claim 19***, Asano further discloses a printer incorporating the system set forth in claim 10 (see Fig. 1).

Regarding ***claim 20***, Miller further discloses a digital copier incorporating the system set forth in claim 10 (column 11, line 45 through column 12, line 6).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Miller having a digital copier incorporating the system, in the system of Asano. The suggestion/motivation for doing so would have been that Asano's system would be usable in various embodiments, thereby being usable by more users, as recognized by Miller in column 12, lines 1-26. Therefore, it would have been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 20.

Regarding ***claim 21***, Asano further discloses a storage medium on which is stored a program that implements the method set forth in claim 1 (see Fig. 1, being inherent in the system controller 101).

Regarding ***claim 22***, Asano further discloses a storage medium on which is stored data that has been processed according to the method set forth in claim 1 (column 2, lines 46-67).

Regarding ***claim 23***, Asano discloses a method of processing image data of a color image for marking (see Figs. 12-14), the color image containing overmarked pixels where at least one first CMY color is to be overmarked by a black color (see Figs. 12-14, whereby the dots are synonymous with pixels, and column 9, lines 41-67), the method comprising generating information that designates the overmarked pixels (step 301, column 7, lines 29-33), performing *image processing* to create a *processed image* of the color image (see Figs. 1, 5, and 6), the *image processing* including overmarking processing that allows both the at least one first CMY color and the black color to be separately included in the overmarked pixels in the same *processed image* (whereby, as read in column 2, lines 60-67 image data is stored in the frame memories that include four planes 108Y, 108Bk,108C, and 108M in which image data corresponding to respective colors of yellow, black, cyan and magenta are stored. Further, the memory elements include four planes 109Y, 109M, 109C and 109Bk. Thus both the first CMY color and the black color would be separately included in the overmarked pixels in the same *processed* image), and modifying CMY image data of the overmarked pixels in the *processed image* to achieve undercolor reduction by reducing a value corresponding to a reduced amount of an underlying CMY marking material (step 302 in Fig. 13, column 7, lines 20-46, and column 9, lines 41-54).

However, Asano fails to expressly disclose if the above noted *image processing* is **raster** image processing that creates a **raster** image of the color image, whereby the **raster** image processing includes the overmarking processing that allows both the at least one first CMY color and the black color to be separately included in the overmarked pixels in the same **raster** image.

Miller discloses a method of processing image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first color is to be overmarked by a black color (column 4, lines 10-25, and column 6, lines 25 through 52), the method comprising generating information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), performing raster image processing to create a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processing including overmarking processing that allows both the at least one first CMY color and the black color to be separately included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63, and column 7, lines 21-45), and modifying image data of the overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21 through 64).

Asano & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's raster image processing teachings included within the image processing teachings of Asano. The suggestion/motivation for doing so would have been that Asano's system would conform with well known standards in the art of color printers, whereby rasterizing print data is in a typical process, as recognized by Miller in column 4, lines 42-67, being included in a PostScript printer. Therefore, it would have

been obvious to combine the teachings of Miller with the system of Asano to obtain the invention as specified in claim 23.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (571) 272-7410. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Primary Examiner
Art Unit 2622

jrp